Impact of Financial Leverage on Pakistani Firms

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Abstract
The purpose of the study is to find the factors that influence on financial leverage of Pakistani firms. The dependent variable is financial leverage and independent variables are profitability, size and growth of the firms. A sample of 10 Firms is selected from two (02) sectors (Cement Sector and Service sector). This study used the secondary data from annual reports of companies from 2006 to 2012. The regression of model and correlation is used to check the factors that influence on the financial leverage. The results of correlation showed that in manufacturing sector Financial leverage (FL) has a negative relationship with profitability (ROA), while Size of the firm (FS) and growth of the firm (FG) have no impact on financial leverage. It means that as financial leverage increases profitability decreases. In Services sector financial leverage (FL) has a positive relation with Size of the firm (FS) while profitability (ROA) and growth of the firm (FG) have no impact on financial leverage (FL). The regression analysis results showed that model is fit for the research and can predict future results. It means that as size increases financial leverage also increases. This finding may be useful for financial advisor, investor and financial managers.

Keywords: Pakistani firms, Financial leverage, profitability, Size, Growth

Introduction
Finance is one of the erection blocks of modern society, encouraging economies to develop. Without finance and without debt, countries and firms are pitiable and stay pitiable. When they can grow and save, individuals can consume even without current income. With the availability of debt, businesses can capitalize when their sales would otherwise not allow it. The study provide investor and analyzer the information of manufacturing and service sector regarding the relationship of financial leverage with other variables that are size of the firm, growth and profitability. The objective of this study is to find either financial leverage is good or bad in the context of Pakistani firms? Financial leverage, in the context of this study, is defined as the degree to which a firm employs borrowed money. Capital structure choices are challenging decision because using higher leverage can take a firm to risk of bankruptcy. But this cannot lead to decide that debt is always bad. Financial leverage is good in a sense that it raises stockowners' return on their investment due to the fact of tax benefit related with borrowing. Therefore, financial leverage decision is important and a firm can use a precise mix of debt and equity to finance its operations this study contributes to the literature on the factors that influence financial leverage of the firm in at least one way. That is it focuses on Pakistani manufacturing and service firms, while only limited research has been conducted on such firms in that context recently.

Eunju yoon (2005) found Financial leverage is a two-edge sword, if used wisely and in control it improves welfare. But, when it is used in surplus and imprudently the result can be tragic. Firms have a variety of options regarding capital structure. For examples, firms can issue little or large debt. Firms have choices of arranging lease financing, use warrants, and issue convertible bonds. Showalter (1999) was the first who introduced leverage theory. Since then many finders tracked Modigliani and Miller’s way to advance new theory on financial leverage and annoyed to departure from their assumptions. Barclay (1998) found financial development is not some magic potion. The accumulation of debt involves risk. As debt increases, borrowers’ ability to repay becomes progressively more sensitive to drops in income and sales as wells as increases in interest rates. And when lenders stop to lending, consumption and investment fall. If the downturn is bad enough, defaults, deficient demand and high unemployment might be the ugly result.

Song (2005) found that capital structure determinant is needy on the nature of debt taken by the firms; many determinants have dissimilar crash on small word and extended word debt. This study find optimistic family member of assets worth with extended term debt as it is unenthusiastically linked with small term debt. Abdulaziz Istaitieh (2005 ) starting with the basics, once one begins thinking about fixed non-state-contingent obligations like bonds, loans and the like things get very complicated very fast. Why are loans and bonds the most prevalent instrument for shifting resources over time? Why are not risks shared more equally among the various parties? The answers to these questions are probably related to information asymmetries and tax
treatment. Ernst (2002) found short of a monetary map is one of the majority ordinary reason used for trade breakdown next choose the incorrect site. Monetary preparation is a significant fraction in the commerce as the eatery commerce has senior fraction of price of auction than other industry.

This study found the effect of some factors on financial leverage of Pakistani firms. A variety of variables that are potentially responsible for determining leverage decisions in companies can be found in the literature. In this study, the selection of exploratory variables depends upon the current empirical studies on capital structure. The choice is sometimes limited, because of lack of relevant data. As a result, the final set of variables includes 4 factors that are leverage, size of the firm, growth of the firm and profitability. The manufacturing sector is selected due to the reason that leverage is one time investment which means that you invest first time after that you gain returns from it. The service sector is selected due to the reason same as manufacturing also due to tax benefit from the depreciation of the assets because leverage is one time cost.

**Research questions**

This research required to provide the answer of following questions:

- What is the main and basic role of financial leverage on Pakistani firms?
- What is the relationship between financial leverage and profitability?
- How the firm size impacts on the profit of the firm?
- What is the relationship between firm growth and profitability?

**Literature Review**

Gill (2011) found that factor that impact on financial leverage of Pakistani Firms in automobiles sector. They used pooled data regression model on sample of 26 firms. They found capital structure is negative correlated with profitability and positively correlated with taxes. Akingunola (2011) explained relationship that short term debt has direct relation with current assets; also short term debt is inversely related to non-debt tax shield, growth and firm size. Roberts (2012) published article that is Equity or Debt Financing: Does Good corporate governance matter? Purpose of the study is whether good corporate governance plays a role in influencing a firm's financing policy. A sample of 2049 firms consisting of 288 observations with equity issuances and 2762 observations with debt issuances. Regression model is used to estimate the results. This paper examined that good corporate governance plays a role in influencing a firm's choice of financing policy.

Covas (2011) found the Cyclical Behavior of Debt and Equity Financing. This article explains that during deterioration in-economic conditions, firms limit the impact of the reduction in external financing on investment by shedding financial assets. This paper shows the empirical findings about the cyclicity of firm financing as long as one controls for the firm size. It also provides set of empirical findings that should helpful to build and evaluate theoretical models about firm financing.

Roberts (2012) published article that is Corporate Debt Financing and Earning Quality. Objective of this article is to study relationship between corporate debt financing and earnings quality and to find the dominance of positive influence of debt or negative influence of debt on earnings quality. It concluded that firms aggressively use accruals to manage earnings to avoid covenant violations and reduce the cost of financing.

Tian (2007) concluded that there is positive relationship obtains in firms in which the government has the controlling interest but in privately controlled ones. Ibrahim (2010) founded the article that is Debt as Venture capital. Article has solve the problem that on lender side, the presence of venture capital substitutes for traditional loan repayment criteria and makes venture debt attractive to a specialized set of lenders.

(Sept, 2011) found, that described the real effects of debt. The study describes that debt increases welfare and growth at moderate level but above the certain level it can be damaging. The data is collected from three sectors that are government; non-financial corporate and household debt is used of 18 countries from 1980 to 2010. Two variables are focused debt and growth and correlations based on bivariate least squares regressions are used. This article concludes that there is clear linkage between debt and growth. High debt is bad for growth. Ali (2011) published that determinant of capital structure across selected manufacturing sectors of Pakistan. This article uses three sectors to determine the capital structure of the firms. A sample of 22 automobile, 7 cable and 8 engineering firms. And the variables used are debt, tax provision, liquidity. The study use pooled data regression model. Article concluded that financing behavior of firms depend upon liquidity, size and profitability. The large firms of automobiles having good capital structure should finance their growth and current operations by debt financing.

Covas et al. (2007) found about Cyclical Behavior of Debt and Equity Financing. This article explains that during deterioration in-economic conditions, firms limit the impact of the reduction in external financing on investment by shedding financial assets. The full data set consists of annual data from 1971 to 2006 for publicly listed firms are used. And methodology used is correlation of group aggregates and panel regressions. This paper shows the empirical findings about the cyclicity of firm financing as long as one controls for the firm size. It also provides set of empirical findings that should helpful to build and evaluate theoretical models about firm financing.
financing.

Scott (1976) argued that Capital Structure force to irrelevant. If invest or earn deal Cost. Brennan (1995) recognized variable that’s careful to power the firm leverage ratio such as: size, tangibility, tax shields, growth opportunities, bankruptcy probability and assets. A view of Myers (2001), equity financing is good option when cash flows and assets are not expected, in this investor has many rights on their assets. Campello (2006) found that is Debt financing does it boost or hurt firm performance in product markets? This article concluded that the firms that are leader firms in concentrated industries cannot increase their sales if the debt exceeds industry standard but there are chances that leader firm with less debt will have proportional effects on growth and sales.

Graham (1998) found that is how big are the tax benefits of debt? The purpose of the study is that the typical firm could double tax benefits by issuing debt until the marginal tax benefit begins to decline. The data is collected from three annual reports Full-coverage primary, secondary and tertiary and research. The variables are tax, debt, real sales, return on asset. The regression is used. The article concluded that firms aggressively used debt and growth firms that produce unique product use debt conservatively. Also trend shows that firms use debt more aggressively now than did in the 1980s. Asquith (1985) published the article that is Equity issues and offering dilution. This article identifies the effect on stock prices of seasoned equity offerings. The announcement of equity offerings reduces stock prices. The data is taken from 531 registered common stock industrial firms. And regression is used to estimate daily excess returns. This article highlights the issues related to equity that when firm announce equity then stock prices reduce. This study also documents a timing pattern related to industrial issuers market adjusted stock price performance. During two years prior to the issue sample industrial firm's stock outperforms the market by an average of 33%.

Hatfield (1994) found that is the determination of optimal Capital Structure: the effect of firm and industry debt ratios on market value. The article demonstrated that in the presence of tax shield substitutes for debt that each firm has a significant interior optimum leverage decision. The data is collected from 183 firms which are considered a new debt issue from 1982 to 1986. The cross sectional regression is used. The variables are growth, debt, market share. This article concluded that there is a negative relation between debt level and that of its industry does not appear to be of concern to the market.

Riaz (2011) found that Determinants on capital structure, case of Pakistani Government owned and private firms. The purpose of the study is to find the suitable capital structure for Pakistani firms. Sample is selected from Pakistani registered companies from ISE. The sample comprised 91 companies out of which 80 companies are private and 11 are government owned companies from period 1999 to 2006. Variables are Tangibility, Size, Growth rate, Tax provision ROA (return on assets) and profitability are used as an independent variables and Financial leverage used as a Dependent variables. They used spearman correlation and regression analysis method. They found the result that Pakistani owned and private companies used different types of financing patterns, Government owned companies employ more leverage than private companies.

Mubin (2014) investigated that extremely leveraged oil and gas companies have inferior profitability. Though, this investigated unsuccessful to hold up the hypothesized optimistic association among financial leverage and both profit measures. It was also hypothesized that well leveraged companies are riskier in terms of their return on equity and asset. The consequences indicate that high leveraged firms were less dangerous in both market-based and secretarial based measures, which is the conflicting of hypothesis two. Industry specific variables may help explain these unpredicted result Memon, khalid, akbar, and abbas (2012) analyze a sample of 16 firm in the F&PC business of Pakistan by using a joint regression model to measure the determinant of capital structure of the firm in this division. We discover that only two individuality size and growth opportunity decide the capital structure of this sector. Both have optimistic association with leverage. The results hold up the still Tradeoff Theory, which expect an optimistic association flanked by firm size and leverage.

Saeed, Gull and Rasheed (2013) give an experiential proof concerning power of capital structure on profitability of banking sector in Pakistan. The answer of study validates a physically powerful optimistic reliance of temporary debt to capital on all profitability measures ROE and EPS (return on equity and earning per share). Extended word debt to capital have a pessimistic association with come back on assets (ROA), return on assets ROE (return on equity) and earnings per share EPS (earning per share), sum money owing to capital and firm size knowledgeable a strong positive link with all dependent variables ROA (return on assets) ROE(return on equity) and EPS( earning per share).. Assets growth (AG) proposed a negative insignificant crash upon go back on asset and go back on fairness, while a pessimistic major crash on profitability as measured by pay per share. Now by analyze the results of each variable we can end that there exist a optimistic association in the middle of capital structure and profitability of Pakistani banks.

Pink (2006) found the determinants of capital structure of average to big sized automotive companies in the Czech Republic. Four significant factor have been identified, namely size, tangibility, profitability and liquidity. Size is pessimistically linked to sum debt and temporary debt, but optimistically related to enduring debt. Tangibility and leverage are optimistically related in each and every one case. Profitability and sum debt as
Panel GMM (generalized method of moments) structure estimator to analyze the Determinant of capital explanation the capital structure of Czech automotive companies. Both the hierarchy and exchange theory, under some situation seem to be valid in of enduring and temporary debt ratios. Hence, the use of sum debt ratio conceals differing result of enduring and temporary debt. The consequences do not evidently verify the general strength of any of the capital structure theory. Neither the hierarchy nor the exchange theory is expansion. The answers provide proof that the environment of association among leverage and descriptive variables is very much dependent on the selection of financial leverage. In four cases there has been experiential difference among enduring and temporary debt ratios. Hence, the use of sum debt ratio conceals differing result of enduring and temporary debt. The consequences do not evidently verify the general strength of any of the capital structure theory. Both the hierarchy and exchange theory, under some situation seem to be valid in explanation the capital structure of Czech automotive companies.

Nguyen, Rainey and Gregoriou (2010) found capital structure of listed Vietnamese firm. We employed a Panel GMM (generalized method of moments) structure estimator to analyze the Determinant of the capital structure of 116 non-financial firm listed on whichever the Ho Chi Minh Stock Exchange or the Hanoi Stock Exchange for the period 2007-2010. The determinant of three diverse actions of leverage (total leverage, temporary leverage and continuing leverage) were explore relation to firm-specific factor (profitability, tangibility, size, growth opportunity and liquidity) and an financial system definite factor. Gill, Mathur (2011) discover the factor that manipulate financial leverage of PAKISTAN firm. This was achieved by collect information from the PAKISTANI manufacturing and service industry result prove that the factor that Determine financial leverage are unlike in the manufacturing and service industry.

Gill, Mathur (2011) found that better slat mass has a pessimistic crash on the profitability of the Pakistani service firm. As a result, Pakistani service firms should believe by a best slat size base on the firm size. In addition, Pakistani service firm should look for outside panel member since they can help pick up the profitability. The development in profitability determination help service firm to exploit shareholders’ riches. Though, the CEO duality improves the profitability of the Pakistani service firm, it might not be helpful for the very large international firm. so, the CEO duality should be old with care since it may have a pessimistic impact of the profitability of the very big international firm.

Kung’u (2015) found that money owing is careful as a method to show up investor’ belief in the firms, but a firms issue money owing, it provide a hint to the marketplace that the firms is expect optimistic cash flow in hope. therefore the senior level of money owing show the self-assurance of the manager in future cash flow but one more bang of the signal factors be the problems of below price of justice but a firms issue justice in its place of money owing for finance its new project investor will take the sign harmfully with other explanation of a firm actions in choose their capital structure. The group theory founded by Jensen and Meckling (2005) which identify possible disagreement among shareholder and manager interest because a part of a managers is lesser than hundred percent in the firms. Manager are an agents to shareholder they aim to transfers money from bondholder to shareholder by more money owing and invested in unsafe (2011). Schrimpf (2007) also express the use of too much money owing create a group problem to shareholder and creditor Myers (2001) explain the organization cost of money owing is cause of firm to take risk Invest behind the issue of money owing to annex money as of the firm’ Bondholder because the firm equity is effective. a store choice since capital structure influence corporate profitability, it is significant to discover the important factor the power firm choice of leverage. Biger et al. (2005) and Gill et al. (2008) find the collateralized property money tax, non-money owing tax protect corporate profitability, firm size, and growth opportunities power capital structure choice of the firms. The finding of preceding author on financial

Gupta, (2014) found an optimistic relation among profitability and leverage. Majumdar and Chhibber (2001) collect information to Indian firm and find minus relationship among corporate profitability and leverage. Huang and Song (2009) employed a database which contained the market and accounting information as of extra than 1000 Chinese scheduled company up to the year 2000. Authors originate that leverage in Chinese firm increase with firm’s size, non-money owing tax shield and fixed asset, and decrease with profitability and correlate with industries. Abor (2001) composed information as of listed firm in Ghana and found an optimistic association among profitability and leverage.

Nguyen and Neelakantan (2006) were used little and medium Vietnamese firm to gather information and originate that leverage is optimistically connected to firm growth and firm size, and pessimistically related to tangibility. Biger et al. (2007) composed information since enterprise consented nation 2002-2003 conduct by the General Statistical Office, Vietnam. From side to side correlation analysis, they establish that financial leverage in Vietnamese firms increase by firm size, and decrease to profitability and with non-money owing tax shield. Financial leverage also linked to business uniqueness. He also establish that firm leverage add to set assets and reduce with increase opportunity with financial leverage.
Theoretical Framework

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Dependent Variable</th>
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<tr>
<td>Profitability</td>
<td>Financial Leverage</td>
</tr>
<tr>
<td>Firm Size</td>
<td></td>
</tr>
<tr>
<td>Growth</td>
<td></td>
</tr>
</tbody>
</table>

Hypothesis

The hypotheses of the study are flowing:

\[ H1 = \text{There is negative relationship between financial leverage and profitability} \]
\[ H2 = \text{There is relationship between financial leverage and firm size} \]
\[ H3 = \text{There is significant relationship between financial leverage and growth.} \]

Methodology

Variables that are used in our study are

- Profitability
- Firm size
- Firm growth

All variable have negative relationship with financial leverage and there is positive relationship between independent variables.

Total population of our study is 20 manufacturing sector companies (cement sector). And in service sector (telecommunication) 10 companies are taken. Sample size of our study is five manufacturing sector companies and five service sector companies. Our study used the sample from Jan 2005 – Dec 2012 of 10 organizations to analyze and interpret our hypotheses as well our results.

We had implemented the co-relational, Regression in our study. The purpose of our research, we had excluded certain sectors due to type of activity. For example banking sector, financial services and equity investment sector was excluded. In addition to all of this some other firms were also omitted due lack of data and information.

Data Analysis and Discussion

The research design used in the research is Exploratory and descriptive research. The Exploratory research is used for collecting secondary data from magazines and journals and descriptive research is used to collect the data, which is through questionnaire. in order to know the Impact of Financial Leverage on Pakistan Firms Exploratory research is used.

Regression Analysis

The regression analysis tells that our models are accurate or not. In the regression analysis we check that how much influence the independent variable on the dependent variables.

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.153*</td>
<td>.023</td>
</tr>
</tbody>
</table>

This model shows if the value of R is 50% or greater than 50% which mean the relationship among the variable is strong and if the value of R is less than 50% which mean the relationship among the variable is weakly. The result of regression analysis shows the value of R is 15% which mean weakly relationship among the variables in that study. If the value of R Square is 50% or greater than 50% which shows independent variable influence the dependent variable. If the value of R square is less than 50% which shows the independent variable not influence the dependent variable. The regression analysis show R square value less than 50% which shows independent variable not influence the dependent variable.

ANOVA

<table>
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<tr>
<th>Model</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.566</td>
<td>.639</td>
</tr>
</tbody>
</table>

The ANOVA tell that our model is appropriate or not. In the Anova table we check the value of F and
Significance if the value of significance is less than 0.05 which shows our model is significance if value of sig is greater than 0.05 which shows our model is not significance the result of ANOVAs table shows the value of sig is greater than 0.05 which mean our model is insignificance.

**Correlation**

**Manufacturing Sector**

<table>
<thead>
<tr>
<th></th>
<th>Leverage</th>
<th>ROA</th>
<th>Size</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leverage</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROA</td>
<td>-0.436673312</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td>-0.174824254</td>
<td>0.111995348</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Growth</td>
<td>0.054022743</td>
<td>-0.103732934</td>
<td>-0.21034</td>
<td>1</td>
</tr>
</tbody>
</table>

The value of ROA negatively correlates with leverage which means that by increasing financial leverage the ROA decreases by 43.67%. The value of Size also negatively correlates with financial leverage which means that by increasing financial leverage the size decreases by 17.48%.

**Service Sector**

<table>
<thead>
<tr>
<th></th>
<th>Leverage</th>
<th>ROA</th>
<th>Size</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leverage</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROA</td>
<td>-0.091378882</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td>0.024804333</td>
<td>0.117474</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Growth</td>
<td>-0.094290645</td>
<td>-0.26027</td>
<td>-0.04027</td>
<td>1</td>
</tr>
</tbody>
</table>

The value of ROA negatively correlates with leverage which means that by increasing financial leverage the ROA decreases by 9%. And size has positive relationship which means that by increasing financial leverage the size increases by 2.48%.

**Conclusion and recommendations**

The regression model is used to check the factors that influence on the financial leverage. The results shows that in manufacturing sector Financial leverage (FL) has a negative relationship with profitability (ROA), while Size of the firm (FS) and growth of the firm (FG) have no impact on financial leverage. It means that as financial leverage increases profitability decreases. In Services sector financial leverage (FL) has a positive relation with Size of the firm (FS) while profitability (ROA) and growth of the firm (FG) have no impact on financial leverage (FL). It means that as size increases financial leverage also increases. This finding may be useful for financial advisor, investor and financial managers.

The findings from this research are as follows:

- There is negative significant impact on profitability of the firms on financial leverage which means that profitability and financial leverage are negatively related to each other. If one unit increases in financial leverage than the profitability decreases by 0.2 unit. The size of the firm has in-significant impact on the financial leverage which means that no change or approximately zero change take place during change in size of the firm on financial leverage. Also growth has in-significant impact on the financial leverage which means that relationship between them is approximately equal to zero. Also size of the firms and growth has in-significant and inverse relation with the financial leverage.
- There is in-significant impact of financial leverage on profitability which means that firms have impact of financial leverage on the profitability. The size of the firm has a positive and a significant impact on the financial leverage which means that by increasing one unit of financial leverage the size of the firm increases by 0.008 units or very small change take place. The last variable used is growth which has insignificant impact on the financial leverage. And it also has a negative impact which means that increase in leverage decrease the growth of the firm.

**References**


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